

## PERSONAL PROJECT DIARY

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DATE	WORK DONE	TOTAL TIME SPENT (Including formal meeting time)
7/10/14 TUESDAY	<ul style="list-style-type: none"> <li>• <b>List of the projects</b> was uploaded in the CS-101 website</li> <li>• After going through the list, my choice was <b>Sudoku solver</b>.</li> <li>• Talked with Lavesh and Sayandeep. Lavesh is interested to do any one between Sudoku and Mineswipper. Sayandeep however agreed with me about Sudoku.</li> <li>• In the first formal meeting we decided to read individually about both of the two projects from the internet.</li> <li>• After the meeting, started to read about <b>Sudoku puzzles and solving techniques in the internet</b>. I read from <b>Wikipedia</b> and some other websites.</li> </ul>	<b>2 hrs.</b>  10:00 pm to 11:00 pm And 11:30 pm to 12:30 pm
8/10/14 WEDNESDAY	<ul style="list-style-type: none"> <li>• Talked with Lavesh and Sayandeep about what I read in the websites last night.</li> <li>• At the evening read more about Sudoku and Mineswipper and prepared for the meeting at night.</li> <li>• In the meeting, we chose Sudoku Auto Solver to be our final Project choice because of its worldwide popularity.</li> <li>• After the meeting while going through different websites, I came to know about the <b>requirements of a Sudoku puzzle to be valid</b> and also the <b>Method of Backtracking</b> to solve a Sudoku.</li> <li>• Realized that, though solving any Sudoku puzzle by the method of backtracking is almost impossible for a human being, but for a computer <b>it is indeed the best way to solve a Sudoku</b>.</li> </ul>	<b>3 hrs.</b>  6:30 pm to 7:30 pm And 9:30 pm to 10:30 pm And 12:00 am to 1:00 am
10/10/14 FRIDAY	<ul style="list-style-type: none"> <li>• In the meeting, we discussed elaborately about <b>different solving techniques of Sudoku</b>. Sayandeep and Lavesh both were also very excited about the backtracking method.</li> <li>• Sayandeep came up with an idea that we should provide an <b>option of playing the Sudoku game for the user</b>.</li> <li>• The works to be done were distributed by our group leader Lavesh.</li> <li>• I am given the following jobs ----               <ul style="list-style-type: none"> <li>▪ Thinking the <b>logic to solve a given unsolved Sudoku</b>, Making an <b>algorithm or flowchart</b>;</li> <li>▪ Coding the functions named <b>getGrid</b> and <b>showGrid</b> (only after the algorithm of solution of the Sudoku is</li> </ul> </li> </ul>	<b>2 hr.</b>  9:30 pm to 11:30 pm

	<p>decided );</p> <ul style="list-style-type: none"> <li>▪ Checking the functions made by Sayandeep and Lavesh.</li> <li>▪ Maintaining the <b>group diary</b>.</li> </ul>	
11/10/14 SATURDAY	<ul style="list-style-type: none"> <li>• Spent almost 2 hours in the morning to think of the <b>logic and steps to solve an unsolved Sudoku</b> and came up with the complete logic and flowchart.</li> <li>• Then I show it to Sayandeep and Lavesh. They appreciated it and some minor changes were made.</li> <li>• After this flowchart, now we can start coding the different functions those are necessary to start the project.</li> </ul>	<p><b>2 hrs.</b></p> <p>11:00 am to 12:30 pm And 2:00 pm to 2:30 pm</p>
12/10/14 SUNDAY	<ul style="list-style-type: none"> <li>• Written the functions named <b>getGrid</b> and <b>showGrid</b>.</li> <li>• Using these functions I checked the functions named <b>checkRow</b> and <b>locateAnEmptyPlace</b> written by Sayandeep and <b>checkColumn</b> and <b>checkBox</b> functions written by Lavesh.</li> <li>• Some minor mistakes in the checkBox functions were found and checked.</li> <li>• Today's meeting was cancelled because Lavesh and I had a quiz on Monday.</li> </ul>	<p><b>2 hrs.</b></p> <p>11:00 am to 1:00 pm</p>
13/10/14 MONDAY	<ul style="list-style-type: none"> <li>• Discussed with Lavesh about the <b>graphical interfaces</b> which will be given in our project.</li> <li>• Got some useful <b>youtube video link</b> (<a href="https://www.youtube.com/watch?v=6dstft52Rbs&amp;list=PL6A4216D6C8E00CFC">https://www.youtube.com/watch?v=6dstft52Rbs&amp;list=PL6A4216D6C8E00CFC</a>) from Lavesh to know about graphics.</li> <li>• Started to watch the videos.</li> </ul>	<p><b>1 hr.</b></p> <p>10:00 pm to 11:00 pm</p>
16/10/14 THURSDAY	<ul style="list-style-type: none"> <li>• In the lab we checked the <b>solveSudoku</b> function and found that was not working properly. We could not find the error in it.</li> <li>• After the lab, I introduced a small change in the <b>solveSudoku</b> function. After that change the function <b>started to solve the Sudoku puzzles properly</b>.</li> </ul>	<p><b>3 hrs.</b></p> <p>8:30 pm to 10:00 pm And 12:00 am to 1:30 am</p>
17/10/14 FRIDAY	<ul style="list-style-type: none"> <li>• In the formal meeting today, different Sudoku <b>puzzles were tested again using the graphical interface of sudokuSolver</b>, made by Lavesh. I also discussed with Lavesh about the <b>algorithm of Sudoku generator and different difficulty level of the game</b>.</li> <li>• After the formal meeting, I formally wrote the <b>algorithm of Sudoku generator</b> and <b>checkValidity</b> function and Lavesh asked Sayandeep to include it in the SRS.</li> </ul>	<p><b>2 hrs.</b></p> <p>9:30 pm to 10:30 pm And 10:30 pm to 11:30 pm</p>
18/10/14 SATURDAY	<ul style="list-style-type: none"> <li>• The next day being the deadline of the 1<sup>st</sup> phase submission of our project work, today we <b>completed the SRS document</b>, decorated the <b>project diary</b> and <b>user manual</b> in the formal meeting.</li> <li>• After the formal meeting I checked the SRS document and user manual again to make sure that it is done properly.</li> </ul>	<p><b>2.5 hrs.</b></p> <p>6:00 pm to 8:30 pm</p>
19/10/14 SUNDAY	<ul style="list-style-type: none"> <li>• Team meeting was held to verify all the documents before submission.</li> </ul>	<p><b>1.5 hrs.</b></p>

<p>30/10/14 THURSDAY</p>	<ul style="list-style-type: none"> <li>• In today's lab me and Lavesh discussed about the Sudoku generator function and made a rough code.</li> </ul>	<p><b>1.5 hrs.</b></p>
<p>20/11/14 THURSDAY</p>	<ul style="list-style-type: none"> <li>• End semester being over now, we started our project again today.</li> <li>• Checked that the previously coded generator function is not working. Sayandeep and me told Lavesh that we will be making that function.</li> <li>• After the formal meeting Sayandeep and me made yje code for generator function.</li> </ul>	<p><b>2.5 hrs.</b></p>
<p>21/11/14 FRIDAY</p>	<ul style="list-style-type: none"> <li>• In the discussion period we found that the generator function is not working properly and it is taking a lot of time to generate Sudoku puzzles.</li> <li>• Decided to use data file processing technique to generate Sudoku puzzle. This task was given to me.</li> <li>• After the meeting I made the data file where a lot of unsolved Sudoku is being stored.</li> </ul>	<p><b>2.5 hrs.</b></p>
<p>22/11/14 SATURDAY</p>	<ul style="list-style-type: none"> <li>• In the morning I made the code for the Sudoku puzzle generator using data file handling.</li> <li>• In the meeting session the functions 'Hint' , 'Check' and 'Sudoku generator' functions were merged in the main function by Lavesh.</li> </ul>	<p><b>2.5 hrs.</b></p>
<p>23/11/14 SUNDAY</p>	<ul style="list-style-type: none"> <li>• Comment lines were written in the meeting session.</li> <li>• The whole program was checked several times by actually playing the game. It is running well.</li> </ul>	<p><b>1 hr.</b></p>
<p>24/11/14 MONDAY</p>	<ul style="list-style-type: none"> <li>• Read and checked all the documents related to the project.</li> <li>• I played Sudoku 3 or 4 times using our program.</li> </ul>	<p><b>2 hrs.</b></p>